



Application for
SECTION 5309
BUS AND BUS FACILITIES GRANT

FOR THE

BRTA'S STATE OF GOOD REPAIR INITIATIVE

BERKSHIRE REGIONAL TRANSIT AUTHORITY
BERKSHIRE COUNTY, MA

JULY 2011

SUBMITTED BY:
BERKSHIRE REGIONAL TRANSIT AUTHORITY



APPLICATION

The Berkshire Regional Transit Authority (BRTA) is committed to redeploying its fixed-route bus service to better respond to regional demands and to improve the availability of service for local and regional riders. This can be realized by implementing a regional service delivery system complemented by point deviation through the utilization of a rural ITS support system along with the acquisition of a new fleet of energy efficient vehicles.

Project: BRTA's State of Good Repair Initiative

Project Type: This transit initiative consists of continuing the transformation of the fixed route bus fleet into a more fuel efficient localized system with regional service, includes replacement of the original maintenance facility in ground fuel storage tanks, the continued implementation of state-of-the-art ITS system, a fare collection system that promotes interoperability throughout the state, an upgrade of security features throughout the BRTA facilities, and the half-life replacement of the 2006 hybrid diesel batteries.

Location: Berkshire County, Massachusetts, within the 1st Congressional District, represented by Congressman John W. Olver.

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Applicant Information

BRTA is one of the eight original regional transit authorities founded by the State in 1974 and annually services over 517,000 riders with fourteen bus routes, 11 of which are in Pittsfield, four in North Adams and the remaining routes to outlying areas within Berkshire County. Today, there are 15 Regional Transit Authorities (RTA) in the State of Massachusetts, eight of which, including BRTA, provide the only transit options in their region. Berkshire County is not served by other transit options such as the Massachusetts Bay Transportation Authority (MBTA) and is the sole provider of mass transit for Berkshire County. BRTA also provides assorted paratransit services, human service transportation, and work plan transportation. BRTA operates the Joseph Scelsi Intermodal Transportation Center, which connects local bus and taxi services with intercity rail, intercity bus services and pedestrian access to the central business district.

BRTA's Current Service: The BRTA currently services the 22 town and 2 city member communities in Berkshire County by operating a rural fixed route bus system and paratransit

services, shown in Figure 1. The daily service area borders Vermont to the north, New York to the west, Connecticut to the south, and is approximately the size of Rhode Island.

BRTA's Current Fleet and Employment Information: The BRTA currently employs 57 people and operates a 24-vehicle fleet with four 35-foot buses, ten 30-foot buses, and ten minivans. The current fleet operates on diesel fuel and has age-related maintenance and operational issues. The 30-foot buses, which generally offer 350,000 miles of use, most have over 400,000 miles currently and are slated for retirement. The 35-foot buses are nearing their half-life of 250,000 miles.

BRTA's Capacity to Implement Project: The BRTA has the technical, legal and financial capacity to implement the project. The BRTA's technical staff will deploy the ITS system integration and manage the capital replacement programs.

Application Format

This application is organized as outlined in the Federal Register Notice, volume 76, number 122, page 37184. Supporting information including letters of support has been posted on the BRTA's website www.berkshirerta.com.

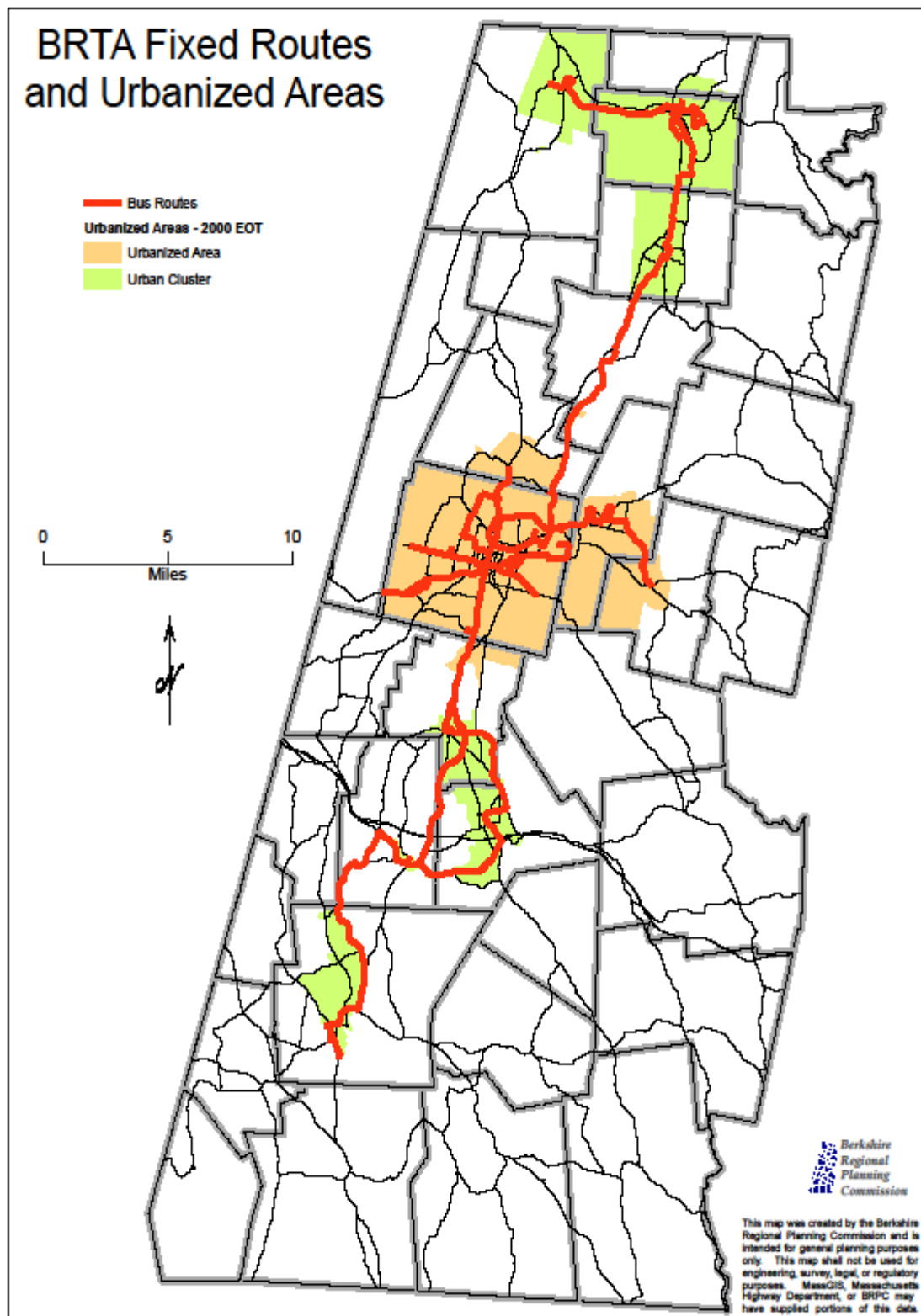


Figure 1

PROJECT INFORMATION

Project Description

The BRTA's State of Good Repair Initiative consists of continuing the transformation of the fixed route bus system into a more fuel efficient localized system with regional service; replacement of the original maintenance facility's in ground fuel storage tanks; the continued implementation of state-of-the-art ITS system; a fare collection system that promotes interoperability throughout the state; an upgrade of security features throughout the BRTA facilities; and the half-life replacement of the 2006 hybrid diesel batteries. All projects listed are contained on the Supplemental List Berkshire Region FY 12-15 Transit Transportation Improvement Plan (TIP), due to lack of funding, and can be added to the current TIP project year should funding be awarded. Matching funds required for this initiative will be Toll Credits from MassDOT. The Berkshire Regional Planning Commission, Berkshire Metropolitan Planning Organization, and MassDOT have been asked to provide letters of support for the BRTA's State of Good Repair Initiative.

Projects are listed in order of importance in the event partial funding is awarded to the BRTA. Supporting documents for these projects include the BRTA 5 year Capital plan, line item budgets for the ITS and Farebox projects are contained in Appendix I.

Vehicle Replacement

The BRTA used a portion of ARRA funding to purchase 6 minibuses and began this transition from large, full sized, inefficient vehicles to smaller, more fuel efficient minibuses.

The vehicles slated for fleet replacement are: 4 30 foot medium duty transit vehicles with an expected useful life of 10 years and 350,000 miles, purchased in 2002 and currently have between 407,000 and 420,000 miles; 4 2006 14 passenger minibuses with an expected useful life of 7 years and 200,000 miles which currently have between 183,000 and 197,000 miles.

The total replacement costs for the 4 30 foot vehicles, calculated using MassDOT averages, is \$1,704,000 with the federal share of \$1,363,200 and \$340,800 as the state match. The replacement vehicle breakdown is as follows: 2 32 passenger heavy duty transit vehicles with a unit cost of \$412,000 and 2 28 passenger heavy duty hybrid diesel electric transit vehicles with a unit cost of \$440,000. The total replacement cost for the minibuses, again using MassDOT averages, is \$320,000 or \$80,000 per unit. The Federal portion is \$256,000 and \$64,000 for the state share of these minibuses.

The BRTA has begun researching what piggyback options are available to fast track the purchase of these vehicles, should funding be awarded.

Bus Facility Upgrade

The original 34 year old, single walled, in ground, fuel tanks installed at the BRTA maintenance facility in Downing Parkway need to be replaced. The current insurance agent would not provide policy coverage on these tanks because of their age, even though they are tested annually. The BRTA has received a written quote to obtain all permits, excavate these 3 tanks,

properly transport and dispose of old tanks, supply and install new tanks, replace the fueling island, repave the area, install fire suppression system, test, recalibrate and train staff on new fueling equipment. The total cost of the tank replacement is \$309,000 with a federal portion of \$247,200 and the state match of \$61,800. As the estimate exceeded the BRTA spending threshold, an RFP for this project will be advertised and issued within 30 days of funding award notification.

ITS Project

The BRTA used a portion of ARRA funding to implement an Intelligent Transportation System (ITS) for the fixed route system. RouteMatch was selected as the vendor from a RFP issued in 2010. The RFP response was divided into 3 phases to allow for compartmentalization of the installation as additional funding was received. Phase I is nearing completion and the funding sought in this application would complete the fixed route and paratransit modules of this project and incorporate the Human Service Transportation (HST) brokerage module. Together these modules would provide a significantly enhanced service delivery solution, create feeder service and deviated route service delivery alternatives, increase individual rider options, institute a real time passenger information platform, and provide a comprehensive passenger data base as well as operational data required for FTA, NTD, and BRTA reporting.

The total additional funds required to complete Phase II and Phase III, less residual funding from Phase I is \$696,067. The total funding required to integrate the ADA mobile data terminals with the fixed route operation is \$193,570. The total funding required to integrate the HST operation and technology with the fixed route and ADA phases is \$237,500. The total cost to complete this ITS project is \$3,542,121 with a federal portion of \$2,833,697 and a state match of \$708,424.

Because RouteMatch currently is under contract with the BRTA for the ITS system, these additional segments can be awarded and contracted immediately after award notification of funding is received.

Interoperability Initiative - Farebox Replacement

The BRTA entered into a statewide cooperative purchasing agreement for fareboxes and related collection equipment to further the statewide interoperability initiative. An RFP was issued and awarded to Scheidt & Bachmann with prices negotiated by each consortium member for the components and quantities requested. Two members of the consortium have exercised their contracts with the fareboxes and related equipment installed at their facilities.

The total cost to purchase and install 28 fareboxes, related software and hardware, and equipment for the BRTA is \$805,000. The federal portion is \$644,000 with a state match of \$161,000.

Because Scheidt & Bachmann has been awarded the contract for the fareboxes and related equipment by the consortium, the BRTA could execute their contract once an award notification of funding is received.

Safety & Security

As a continual focus on safety and security at all BRTA properties, the BRTA will: evaluate, update, and install additional cameras throughout the facilities; install electric controlled security gate; install or reinforce barbed wire fence topping. As technology improves camera resolution quality combined with reduced pricing for added features, such as low light infrared motion sensor triggered, the BRTA will review locations which would benefit from these technological advances. The manual gate and fencing surrounding the maintenance facility is original equipment when the building was constructed 34 years ago. By coordinating the gate/fence upgrade with the fuel tank replacement, BRTA assets would remain secure while minimizing disruption to the concrete and blacktopped surfaces.

Cost estimates to perform these safety and security upgrades is \$106,000 with a federal portion of \$84,800 and a state share of \$21,200. As stated above, this work would be coordinated with the fuel tank replacements once award notification of funding is received.

Bus Equipment

The BRTA purchased a 35 foot, heavy duty, hybrid diesel electric vehicle in 2006. The manufacturer stated that the batteries used in this vehicle would need replacement after 6 years or midway through its useful life. This battery replacement should occur during this fiscal year to ensure that once the batteries fail, the vehicle will not be out of service for an extended amount of time.

The price quoted to replace these batteries is \$40,000 with the federal portion of \$32,000 and the state match of \$8,000. Once an award notification of funding is received, this battery pack could be ordered.

Conclusion

<u>Project</u>	<u>Federal</u>	<u>State Match</u>
Vehicle Replacement	\$1,619,200	\$404,800
Bus Facility Upgrade	\$ 247,200	\$ 61,800
ITS Project	\$2,833,697	\$708,424
Interoperability Initiative	\$ 644,000	\$161,000
Safety & Security	\$ 84,800	\$ 21,200
Bus Equipment	<u>\$ 32,000</u>	<u>\$ 8,000</u>
Project Total	\$5,460,897	\$1,365,224

The six projects listed above demonstrate the requirement to remain current with the fleet and facility replacement projects, embrace new technologies to improve service to our customers, and maintain the assets entrusted to our stewardship.

APPENDIX I

**BRTA Capital Plan
RouteMatch Completion Costs**